

### **REMARKS**

Applicant has carefully reviewed and considered the Office Action mailed on December 10, 2002, and the references cited therewith.

Claims 19, 22, 25-26, 28-29, 31, 34, 94, 97, and 100 are amended; as a result, claims 19-36 and 94-102 are now pending in this application.

### **In the Drawings**

The drawing is amended at the request of the Examiner. Applicant respectfully disagrees with the need to amend the drawings. Nevertheless, Applicant has elected to amend the drawings solely for the purpose of expediting the patent application. Support for the amended specification is found on page 4, lines 18-21, where the specification recites "[d]evices 103 and 105 may be any type of active or passive device capable of being fabricated using integrated circuit technologies, such as metal-oxide semiconductor (MOS) or bipolar technologies." FIG. 1A is now added and referenced with the appropriate amendments in the specification to show bipolar. No new matter has been introduced.

### **In the Specification**

The specification is amended to reference the corrected drawings. Support for the amended specification is found on page 4, lines 18-21, where the specification recites "[d]evices 103 and 105 may be any type of active or passive device capable of being fabricated using integrated circuit technologies, such as metal-oxide semiconductor (MOS) or bipolar technologies." No new matter has been introduced.

### **First §102 Rejection of the Claims**

Claims 19-36, 94-98, and 100-102 were rejected under 35 USC § 102(e) as being anticipated by Graettinger et al. (U.S. Patent No. 6,348,709). Applicant traverses these grounds for rejection. In order to support an anticipation rejection, each and every element of the rejected claims must be disclosed, taught, or suggested in the cited reference. Here, Graettinger does not teach, disclose, or suggest a first barrier restricting oxygen migration and a second barrier

restricting substrate atomic migration, as is recited in Applicant's amended independent claims 19, 22, 25, 28, 31, 34, 94, 97, and 100.

More specifically, Graettinger includes a spacer that is insulated for restricting oxygen diffusion (e.g., Graettinger, col. 4, lines 60-67). Accordingly, Graettinger uses an insulator as an oxygen diffusion barrier. Conversely, Applicant's independent claims are not using an insulator as an oxygen diffusion barrier, rather, a first barrier, which is conductive, is used to restrict oxygen atom migration. Therefore, the spacer insulator taught in Graettinger is not the same as Applicant's first barrier. Moreover, Applicant's first barrier is electronically conductive. Accordingly, the rejection with respect to Graettinger is not longer sustainable and should be withdrawn.

Furthermore, Graettinger does not teach a second barrier capable of restricting substrate atom migration as is recited in Applicant's amended independent claims. Graettinger addresses oxygen diffusion, but as was pointed out in Applicant's originally filed specification if substrate atom migration is not also restricted, then electrical properties of the integrated circuit devices can be inadvertently altered during circuit fabrication, (Original Specification, pg. 2, lines 16-18). Graettinger does not teach, disclose, or suggest a second barrier for restricting substrate atomic migration. Thus, for these additional reasons the Graettinger reference does not teach, suggest, or disclose each and every element in Applicant's amended independent claims and the present rejections should be withdrawn.

### **Second §102 Rejection of the Claims**

Claims 19-36, 94-98, and 100-102 were rejected under 35 USC § 102(e) as being anticipated by Tsunemine et al. (U.S. Publication No. 2001/0045591). Applicant traverses these grounds for rejection. Again, to sustain an anticipation rejection it is fundamental that each and every element in the rejected claims must be taught, disclosed, or suggested in the cited reference. Here, Tsunemine uses multiple insulation layers to reduce oxidation. Tsunemine does not disclose, teach, or suggest a first barrier layer restricting oxygen atom migration and a second barrier layer restricting substrate atom migration, where such barrier layers are electrically conductive, as is recited in Applicant's amended independent claims.

More specifically, Tsunemine uses two insulating films to restrict oxidation. Tsunemine does not address a barrier capable of restricting substrate atomic migration to reduce the

likelihood of unintentionally altering the electrical properties of the integrated circuit during fabrication. Conversely, Applicant's amended independent claims recite a first barrier that restricts oxygen atom migration and a second barrier that restricts substrate atomic migration. Thus, Tsunemine fails to teach, disclose, or suggest each and every element of Applicant's amended independent claims. Therefore, the present rejections should be withdrawn.

**First §103 Rejection of the Claims**

Claims 19-36 and 94-102 were rejected under 35 USC § 103(a) as being unpatentable over Graettinger et al. in view of Moise et al. (U.S. Patent No. 6,211,035). Applicant traverses these grounds for rejection.

Applicant respectfully submits that Graettinger is not prior art under §103 with respect to claims 19-36 and 94-102 of the present application. A reference asserted under 102(e) that was commonly owned with an application at the time the invention was made, cannot preclude patentability under 35 U.S.C. 103 of the claims of the application when the application was filed on or after November 29, 1999. *35 U.S.C. 103(c); 1233 OG 55 (April 11, 2000)*. Applicant notes that the Examiner has incorrectly recited the effective date of this law as November 29, 2000. The citation listed above will show the Examiner that this law does apply to the present application. Therefore, Graettinger cannot be used as §103 prior art against the present Applicant. Furthermore, the present application was filed on 31 August 2000, as shown by the attached copy of the Filing Receipt, which is after November 29, 1999. Graettinger and the present application were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person. Thus, Graettinger is commonly owned with the present application and is not prior art under §103 with respect to claims 19-36 and 94-102 of the present application.

The above notwithstanding, Moise is relied upon in the Office Action to disclose a second device. Hence, Moise does not cure the deficiencies of Graettinger. Therefore, applicant respectfully requests withdrawal of the rejections and reconsideration and allowance of claims 19-36 and 94-102.

**First §103 Rejection of the Claim 26**

Claim 26 was rejected under 35 USC § 103(a) as being unpatentable over Graettinger et al. Applicant traverses these grounds for rejection.

Applicant respectfully submits that Graettinger is not prior art under §103 with respect to claims 19-36 and 94-102 of the present application. A reference asserted under 102(e) that was commonly owned with an application at the time the invention was made, cannot preclude patentability under 35 U.S.C. 103 of the claims of the application when the application was filed on or after November 29, 1999. *35 U.S.C. 103(c); 1233 OG 55 (April 11, 2000)*. The present application was filed on 31 August 2000, as shown by the attached copy of the Filing Receipt, which is after November 29, 1999. Graettinger and the present application were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person. Thus, Graettinger is commonly owned with the present application and is not prior art under §103 with respect to claims 19-36 and 94-102 of the present application.

The above notwithstanding, claim 26 is dependent on patentable claim 25 and is therefore patentable. Therefore, applicant respectfully requests withdrawal of the rejections and reconsideration and allowance of claim 26.

**Second §103 Rejection of Claim 26**

Claim 26 was rejected under 35 USC § 103(a) as being unpatentable over Tsunemine et al. Applicant traverses these grounds for rejection. Tsunemine, as discussed above, fails to teach a first barrier restricting oxygen atom migration and a second barrier restricting substrate atomic migration, thus Tsunemine fails to anticipate claim 25. Moreover, Claim 26 is dependent from claim 25. Therefore, application respectfully requests withdrawal of the reject and reconsideration and allowance of claim 26.

**Documents Cited but Not Relied upon for this Office Action**

Applicant has not responded to the assertion of interest to the instant application stated for the patents cited but not relied upon by the Office Action since these patents are not relied upon as part of the rejections in this Office Action. Applicant is expressly not admitting to any assertion of their pertinence and reserves the right to address the assertion should it form a part of some future rejection.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Joe Mehrle, at (513) 942-0224 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By



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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 10 day of March, 2003.

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Name

[Signature]  
Signature